

6. Just Culture of Patient Safety

A White Paper Prepared for the Royal College of Physicians and Surgeons of Canada, Future of Medical Education in Canada

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Summary of Key Points

- Despite being an excellent document, uptake of the Patient Safety Competencies framework remains minimal among PGME programs
- Several reasons exist for this lack of uptake:
 - Teaching the Safety Competencies has not been an imperative
 - The Safety Competencies Framework is a high-level document, and it may be challenging for educators to translate these competencies into formal, informal and incidental education for residents.
 - There is not enough expertise at the faculty and program level to integrate this content into all PGME programs
 - The culture of medical education and of many hospitals is not a culture of patient safety.
- Strategies to improve its uptake must address the explicit curriculum as well as the hidden curriculum and the culture of the working and learning environments.
- Efforts as recommended below will help to bring awareness to what's being taught implicitly, and allow for more explicit decisions regarding what to teach, in addition to an overall positive impact on the entire culture

Summary of Recommendations

1. The Royal College has an essential role in leading change with respect to the teaching of patient safety curricula in postgraduate specialty medical education programs; teaching and assessing the Patient Safety Competencies must become a mandatory part of PGME program curricula.
 - For the Royal College, this includes:
 - i. Incorporating the safety competencies into the next iteration of the CanMEDS framework,

- ii. Embedding patient safety in the accreditation standards for all PGME programs,
 - iii. Ensuring patient safety knowledge is assessed in the specialty-specific Royal College exams, including error avoidance and management, and,
 - iv. Including requirements for ongoing professional development with respect to patient safety in the annual maintenance of certification (MOC) requirements.
- 2. There needs to be faculty development and continued professional development for teachers and practicing physicians.
 - In terms of the Royal College levers for change, it is recommended that
 - i. The Royal College partner with the Canadian Medical Protective Association (CMPA), the Canadian Patient Safety Institute (CPSI), the College of Family Physicians of Canada (CFPC) and others to explore options for a train-the-trainer program or other resources for PGME faculty,
 - ii. This train-the-trainer program be used to promote the identification and development of a local champion for patient safety at each medical faculty,
 - iii. The Royal College, with its partners, look to creating a tool-kit or inventory of best practices to assist faculty with embedding patient safety in their existing curriculum, and,
 - iv. The Royal College advocate for, or work with its partners to develop, a Royal College area of focused competence (diploma) program in patient safety.
- 3. That patient safety curricula (for both teaching and learning) be interprofessional in nature.
 - It is recommended that the Royal College:
 - i. Advocate for partnerships with organizations representing other health professionals, to create faculty resources as well as other tools, and,
 - ii. Encourage the use of simulation as a valuable tool for IPE in both the learning and working environments.
- 4. That systematic strategies to measure and change the working and learning environments to support a patient safety culture be implemented.
 - The Royal College's levers with respect to this recommendation include:
 - i. Encouraging the measurement of culture in PGME programs using a valid and reliable instrument such as the Safety Attitudes Questionnaire (SAQ), by including this as a requirement in the postgraduate training program accreditation requirements.
 - ii. Advocating for leadership support for patient safety, setting the tone for culture by altering traditional structures such as M&M rounds and others, to include a focus on error identification, mitigation and prevention, including a review of complications and near misses, emphasizing a fair and just culture.

6. Une culture équitable de sécurité des patients

Livre blanc préparé pour le Collège royal des médecins et chirurgiens du Canada: L'avenir de l'éducation médicale au Canada

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Sommaire des principaux enjeux

- Bien que le cadre des compétences liées à la sécurité des patients constitue un excellent document, son intégration aux programmes de formation médicale postdoctorale (FMPD) demeure minimale.
- Cette lacune s'explique de plusieurs manières :
 - l'enseignement du cadre des compétences n'a pas constitué un impératif jusqu'à maintenant;
 - le cadre est un document de haut niveau, et les éducateurs peuvent éprouver de la difficulté à traduire ces compétences en enseignement formel, informel et ponctuel à l'intention des résidents;
 - les facultés et programmes de formation médicale ne disposent pas d'un nombre suffisant d'experts en la matière pour intégrer ce contenu dans tous les programmes de FMPD;
 - la culture qui prévaut dans l'éducation médicale et dans de nombreux hôpitaux n'est pas orientée vers la sécurité des patients.
- Les stratégies visant à améliorer cette intégration doivent tenir compte des contenus pédagogiques explicites, de même que du curriculum caché et de la culture des milieux de travail et d'apprentissage.
- Les mesures recommandées ci-dessous aideront à faire ressortir ce qui est enseigné de manière implicite, et permettront de prendre des décisions plus explicites à l'égard de ce qui doit être enseigné, en plus de générer des effets globalement positifs sur la culture dans son ensemble.

Sommaire des recommandations

1. Le Collège royal joue un rôle essentiel dans l'orientation des changements en ce qui concerne l'enseignement des contenus relatifs à la sécurité des patients dans les programmes de FMPD. L'enseignement et l'évaluation des compétences liées à la

sécurité des patients doivent devenir des éléments obligatoires des programmes de FMPD.

- Pour le Collège royal, cela signifie notamment :
 - i. d'incorporer les compétences liées à la sécurité dans la prochaine édition du cadre CanMEDS;
 - ii. d'intégrer la sécurité des patients dans les normes d'agrément pour tous les programmes de FMPD;
 - iii. de veiller à ce que les connaissances sur la sécurité des patients soient évaluées dans les examens propres aux spécialités du Collège royal, y compris les stratégies visant à éviter les erreurs ainsi que la gestion des erreurs;
 - iv. d'inclure des exigences concernant la sécurité des patients dans les programmes de développement professionnel continu (DPC) au nombre des exigences annuelles du programme de Maintien du certificat (MDC).
- 2. Il serait nécessaire d'instaurer des programmes de perfectionnement des corps professoraux et de DPC destinés aux enseignants et aux médecins en exercice.
 - En ce qui a trait aux leviers de changement du Collège royal, il est recommandé que :
 - i. le Collège royal collabore avec l'Institut canadien pour la sécurité des patients (ICSP) et d'autres organismes afin d'étudier des options pour concevoir un programme de formation pour les formateurs ou d'autres ressources à l'intention des professeurs de la FMPD;
 - ii. ce programme de formation pour les formateurs soit utilisé pour favoriser la nomination et la formation d'un champion local de la sécurité des patients dans chaque faculté de médecine;
 - iii. le Collège royal envisage, de concert avec ses partenaires, la création d'une boîte à outils ou d'un inventaire des pratiques exemplaires pour aider les corps professoraux à intégrer la sécurité des patients dans leurs programmes d'études existants;
 - iv. le Collège royal propose un programme de domaine de compétence ciblée (diplôme) en matière de sécurité des patients, ou collabore avec ses partenaires à la conception d'un tel programme.
- 3. Les contenus pédagogiques sur la sécurité des patients (tant du point de vue de l'enseignement que de l'apprentissage) devraient être de nature interprofessionnelle.
 - Il est recommandé que le Collège royal :
 - i. favorise la formation de partenariats avec des organismes représentant d'autres professionnels de la santé afin de créer des ressources et des outils supplémentaires à l'intention des corps professoraux;
 - ii. encourage l'utilisation de la simulation comme outil de grande valeur pour l'éducation interprofessionnelle, tant dans les milieux de travail que d'apprentissage.
- 4. Il y aurait lieu de mettre en œuvre des stratégies systématiques pour évaluer et modifier les milieux de travail et d'apprentissage et soutenir une culture de sécurité des patients.
 - Les moyens d'action dont dispose le Collège royal à l'égard de cette recommandation comprennent :
 - i. encourager l'évaluation de la culture dans les programmes de FMPD par l'utilisation d'un instrument valide et fiable comme le Safety Attitudes Questionnaire (questionnaire sur les attitudes en matière de sécurité, ou SAQ) en incluant cette mesure parmi les exigences pour l'agrément des programmes de formation postdoctorale;

- ii. favoriser le soutien des dirigeants envers la sécurité des patients, établir des conditions propices à la culture en modifiant les structures traditionnelles comme les séances de morbidité et mortalité et autres, privilégier la détection, l'atténuation et la prévention des erreurs par l'examen des complications et des erreurs évitées de justesse, et promouvoir une culture juste et équitable.

Just Culture of Patient Safety

Introduction

Patient safety refers to freedom from harm from the provision of healthcare. Providing safe care goes beyond patient- and disease-specific diagnosis and management, and demands a systems perspective that considers the nature and contribution of the organization, people, tasks, tools, technology and environment to the clinical outcomes of patients. A 'culture of patient safety' refers to "the commitment of health care practitioners and their institutions and organizations to minimize patient harm, promote the well-being of patients and health care providers, reduce the likelihood of adverse events, and communicate safety concerns – while at the same time learning from close calls and other events."¹ These organizations that truly embody a true commitment to patient safety also foster a proactive and innovative culture to identify and correct vulnerabilities in the processes and systems of care, rather than waiting to respond to adverse events. In short: patient safety culture is one that demonstrates an organizational-wide commitment to providing the safest possible care to patients.

A culture of patient safety values transparency,² accountability,³ patient-and family-centred care,⁴ and learning from adverse events, including errors, as well as close calls (near-misses). The culture is generative and that of a learning organization, one in which information is actively sought, messengers are trained, failures result in inquiry and new ideas are welcomed.⁵ Healthcare workers are provided the opportunity to develop the knowledge, skills and attitudes to practice the safest medicine possible. Other values were identified in a recent review of patient safety culture literature which generated a conceptual culture of safety model, identifying seven subcultures of patient safety culture: (a) leadership, (b) teamwork, (c) evidence based, (d) communication, (e) learning, (f) just, and (g) patient-centred.⁶ Organizations with a "just" culture of safety recognize that, despite the best efforts of all involved, adverse events in the delivery of care will occur. The term "just" reflects a fair and supportive system. A just culture considers the practitioner within the larger system, and does not focus on blame, but does not absolve the individual from the need for accountability and professional behaviour.⁷ The reasons for clinical outcomes and events are not prejudged, and any rush to blame individuals is avoided. Rather, there is an attempt to understand the circumstances and context for the actions and decision-making at the time the event occurred. Individuals are not held accountable for system failures over

which they have little or no control. The organization accepts appropriate responsibility and accountability. System failures are identified and corrected.

It is often said that “culture is the way we do things around here;”⁸ however, in healthcare, it may be difficult to know where “here” is. As healthcare is complex; “here” may be the doctor’s office, a hospital ward, the whole hospital, the physiotherapy clinic, long term care facility or even all of the above. If we consider the discrete units of healthcare as microsystems, mesosystems and macrosystems, we can appreciate that a ward (microsystem) within a hospital (macrosystem) will have a culture of its own that reflects the larger organizational culture but is shaped by the local context. In fact, research studies support the notion that culture is localized by unit or clinical area, rather than by hospital.^{9 10 11}

The Future of Medical Education in Canada initiative provides an opportunity to bring patient safety to the forefront of postgraduate medical education (PGME). This paper explores the current status with respect to patient safety and a culture of patient safety within the context of PGME. This paper also emphasizes concrete, practical recommendations to improve the current culture of medical education, such that both its explicit and implicit curriculum actively promote a culture of patient safety for all learners spanning the continuum of medical education.

Background

In Canada, 8-24,000 adults are injured yearly in hospital as a result of adverse events.¹² Each one has a name and a face; the harm they experience impacts the patient, their loved ones, the community and society as a whole. The cost of treating provider/medical errors is a significant economic cost to the health care system. Although no organization or healthcare professional intends to hurt a patient, the reality is that the healthcare system is not yet designed to deliver consistently safe care.¹³

The science of patient safety is a composite science which includes cognitive psychology, reliability science, human factors engineering, risk assessment and management, systems and complexity sciences, and others.¹⁴ Some of the tools of these sciences, including systems thinking and design, teamwork, communication, and situational awareness are applicable to patient care, and are instrumental to delivering the safest care possible. The science and tools all have requisite knowledge, skills and behaviours. However, to be

effected and effective, science and tools must operate within a supportive environment, or a culture of patient safety.

A decade ago the Royal College of Physicians and Surgeons of Canada hosted a forum on patient safety, which sparked the national imperative for action. In its report, *Building a Safer System, A National Integrated Strategy for Improving Patient Safety in Canadian Health Care*,¹⁵ the National Steering Committee on Patient Safety proposed five building bricks necessary for change; one of them was the need for educational and professional development programs. The resulting Patient Safety Competencies¹ document, a collaborative effort led by the Canadian Patient Safety Institute (CPSI) and the Royal College, was published in 2008 and represented the first national effort to identify the knowledge, skills and attitudes required by all graduating healthcare professionals in order to ensure safe patient care. The Safety Competencies defines the knowledge, skills and attitudes required among health professionals, related to six domains of patient safety:

- Culture of Patient Safety;
- Teamwork;
- Team Communication;
- Risk Management;
- Human and Environmental Factors; and,
- Adverse Events (including identification, response, and disclosure).

Its intended use is as a competency-based framework which can serve as the foundation for formal educational curriculum and ongoing workplace learning for all health professionals. Other frameworks have been developed internationally, including the Institute of Healthcare Improvements (IHI)'s Open School, an online resource for learners and educators,¹⁶ the World Health Organization's (WHO) Patient Safety Curriculum Guide for Medical Schools,¹⁷ and Australia's National Patient Safety Education Framework.¹⁸

Despite the various frameworks that have addressed patient safety through the lens of health professional education, implementation of patient safety content in medical education curricula remains inconsistent across Canada, and is often limited to pockets of innovation and excellence.¹⁹ Furthermore, while some postgraduate training programs have begun to include in their formal curriculum the knowledge and skills which represent the scientific

aspects of patient safety emphasized in the Patient Safety Competencies framework, the cultural and attitudinal aspects are not formally (or informally) addressed. The latter may be the most challenging to address, but may be the biggest predictor of resident (and faculty) behaviour.²⁰

What's Wrong with the Status Quo? Drivers for Change

The white paper working group theorizes that uptake of the Patient Safety Competencies, and other frameworks, among Canadian postgraduate medical education programs has been limited, for the following reasons:

1. Teaching the Safety Competencies has not been an imperative. The Royal College and the College of Family Physicians of Canada (CFPC) do not require PGME programs to include the Patient Safety Competencies knowledge, skills and attitudes in their programs.
2. The Safety Competencies Framework is a high-level document, and it may be challenging for educators to translate these competencies into formal, informal and incidental education for residents. Furthermore, concrete teaching and assessment tools that can be used at the program level have not been widely disseminated, and as such it is challenging for program directors and other educators to take the high level framework and make it practical for learners. Additionally, requirements may be different on different services (e.g. Medicine vs. Surgery) making a universal hospital/university document too high level for application.

Currently, PGME programs are required to organize their curriculum using the CanMEDS framework, in which patient safety competencies are embedded, albeit in a diffused manner. Mapping Patient Safety competencies to the CanMEDS framework is often a challenging curricular task, so that it may be difficult to incorporate teaching Safety Competencies into existing curriculum. The white paper working group worked to map the competencies to the CanMEDS Roles. This was a challenging task because each domain cuts across a number of CanMEDS roles. Even at the individual competency level some of the competencies contained aspects of two or more CanMEDS roles. An initial classification (see Appendix 1) is being presented to be used as a starting point for future debate. An additional document (see Appendix 2), also mapped to the CanMEDS Roles, provides an assessment tool

for program directors. There is a need for broad agreement on the linkages between the two frameworks in order for it to be a useful tool for program directors.

3. There is not enough expertise at the faculty and program level to integrate this content into PGME programs. Patient safety and quality are relatively new niche areas of faculty expertise, and there is a paucity of educators with the necessary background training to develop and deliver this type of curricula at all levels of training, including faculty development as well as PGME. University support and recognition for teaching, particularly for quality and patient safety, continues to lag behind that for research and clinical care in many instances.
4. The culture of medical education and of many hospitals is not a culture of patient safety. Although hospitals or programs may mandate safety processes or curricula, they have not been universally accepted with belief in their principles, and are often conducted or taught without a true commitment and understanding of patient safety.

Until the above is addressed, patient safety will remain on the periphery of medical education, and consequently, will not become explicitly embedded into the culture and the practice of future generations of physicians. The public will not know whether its physicians are competent in these domains. Medical educators, and the PGME system as a whole, have a responsibility to the public to ensure the physicians of the future are trained within these evolving paradigms of teamwork, communication, systems thinking, and preventing and learning from adverse events, within a supportive learning environment.

Possible Solutions – the Explicit Curriculum

There are a number of options that have been considered by the white paper working group, to challenge the status quo to effect change.

Incorporating the Patient Safety Competencies into curriculum will need to become an imperative for PGME programs. In particular, the Royal College is in a unique position to mandate that all programs teach and assess the competencies outlined in the framework. Furthermore, the Royal College is in a unique position to take ownership of incorporating the Safety Competencies into the CanMEDS framework, in a more easily identifiable manner. The curriculum should weave through the years of training starting at the undergraduate level, at every opportunity, rather than only be delivered as episodic standalone, didactic sessions.

However, it must be recognized that the introduction of such an imperative, without the necessary supports, would not have the intended positive impact among Canadian programs. As the Royal College learned with the implementation of the CanMEDS Framework, as soon as new requirements are introduced, the need for tools, resources, and faculty development support at the program level increases considerably.²¹ As such, the introduction of this imperative must be supported with practical tools to help medical educators and program directors embed the patient safety content within their existing curriculum. In particular, the working group recommended tool-kit that is discipline- and context-specific, accessible and implementable to help educators with this task; similarly, the Royal College may consider existing tools such as the CanMEDS “What Works” inventory to provide educators with concrete examples of ideas that have been successful in similar programs.

These tool kits must include both teaching and assessment tools. For example, a broad range of teaching tools should be explored, including teaching at the bedside, at handoffs, in the form of “what if” conversations, Case Based Learning (CBL), grand rounds, patient safety rounds, M&M rounds, journal club, practice OSCE’s and simulation sessions.

For example, systematic reviews of continued professional development efforts to include quality and safety for practicing clinicians have revealed that well-established adult learning techniques, such as experiential learning, are key factors for successful implementation.²² Consequently, educational tools such as simulation may be very important by promoting a teaching environment which supports patient safety themes, professionalism, and inter-professionalism, yet maintaining the patient problem in the centre. Other teaching strategies include the use of narrative and reflective practice.²³ Capacity to use these modalities in Canadian training and professional development is still small and a reluctance of practicing clinicians to utilize such methods as part of their own learning plans contributes to the challenges of the learning environment.

Moreover, assessment of resident performance should include validated tools for the assessing of patient safety competencies, for example, using Anaesthetists’ Non-Technical Skills (ANTS) rating system to assess teamwork performance. Methods of assessment may include direct observation in the workplace, in the simulator, or a group task and multisource feedback.²⁴ Direct observation and simulation are valuable formative assessment strategies to identify learning needs of healthcare providers with regard to knowledge, skills and attitudes comprising the safety competencies in the clinical settings. In terms of summative assessment, it is believed that explicitly assessing patient safety

competencies in the Royal College certification exams will be a powerful tool to encourage their inclusion in PGME curricula; for example, the Obstetrics and Gynecology examination included a disclosure OSCE in 2010.

In addition to practical tools for teaching and assessing the Patient Safety Competencies, the development of a cohort of onsite experts in patient safety who can apply the tools to teach and advise the next generation of physicians, and act as champions for safety, is also critical.

Courses and initiatives such as the Canadian Patient Safety Institute's Patient Safety Officer Course²⁵ and the Patient Safety Education Project (PSEP)²⁶ have been developed, but uptake and widespread dissemination has been limited. Although interprofessional learning opportunities such as courses, workshops, and conferences have been developed to assist the implementation of safety into healthcare systems, less effort has been made to teach medical educators about patient safety, and then how to teach those concepts to their students. To this end, the Royal College can play an important role in national faculty development. The Royal College's national mandate with respect to specialty medical education lends it a unique perspective and a unique opportunity in developing a national faculty development program [See Faculty Development white paper]. The Royal College can facilitate the development of faculty development content for patient safety, may consider a Train-the-Trainer (TTT) model to build local champions at individual institutions, and possibly promote the development of fellowship programs or a national diploma program in patient safety to build the cadre of experts within medical education.

Furthermore, the inclusion of required safety education components to the lifelong learning strategies embedded in the maintenance of certification cycle of practicing physicians will assist in defining the value of safety knowledge to both trainees and practicing physicians, and will promote the safety culture in the learning and working environments.

Barriers to Change and Suggested Strategies – the Hidden Curriculum and the Culture of Medical Education

The possible solutions articulated above reflect the explicit curriculum, or roadmap to patient safety, in PGME. It is important to emphasize the *hidden curriculum*, which can sabotage these efforts. The hidden curriculum is a "set of influences that function at the level of organizational structure and culture affecting the nature of learning, professional interactions, and clinical practice."²⁷ As noted in *A Collective Vision for MD Education*, the

final report of the undergraduate phase of the Association of Faculties of Medicine of Canada (AFMC) Future of Medical Education in Canada (FMEC) project, "there are elements of the hidden curriculum that are positive in nature; however, many others have been identified as having a counterproductive effect on learning,"²⁸ for example, power and hierarchy issues, and negative role modeling.²⁹ Furthermore, disruptive behaviours have been linked to medical error and adverse events.³⁰ Some behaviours are often not overt but convey an attitude that diminishes the importance of an activity. Mutual respect and trust are therefore integral to a culture of patient safety, and to optimize the safety of patients in our care, formal strategies to embed patient safety in PGME programs must address both the explicit and hidden curricula.

Practical solutions for addressing culture of medical education and the hidden curriculum can be challenging to identify and implement, making this barrier difficult to overcome. In medicine, the learning environment is entrenched in the working environments of hospitals and other health services centres; to address the culture of the learning environment, one must also address the culture of medicine. As emphasized in the National Patient Safety Foundation report, *Unmet Needs: Teaching Physicians to Provide Safe Patient Care*, "health care settings are among the most hierarchical in... society. In these settings, students, residents, nurses, pharmacists, and other health care workers are often intimidated by physicians and reluctant to question or offer alternative views... these are the frameworks in which student values, attitudes and behaviours are shaped."³¹ Furthermore, the report cites evidence of students and residents being exposed to dehumanizing behaviours in the clinical context, witnessing unethical behaviours towards patients, and experiencing abuse from faculty.³¹ The authors argue that "such behaviours create a culture of fear and intimidation, diminish individual and collective pride and morale, impair learning, and sap joy and meaning from work."³¹

It has long been recognized in the patient safety literature that leadership support is needed to implement patient safety processes and changes in hospitals and other health service organizations. Executive walkabouts and other strategies have become increasingly common aspects of organizational quality and patient safety programs.^{32 33} Similarly, the authors of the *Unmet Needs* report argue that leadership support is needed to alter the culture of medical education such that both the explicit and hidden curricula support a just culture of patient safety; "these are primarily medical school deans, teaching hospital CEOs, department chairs, and residency program directors."³¹ Safety is a greater concern for hospital than the university as it more directly affects their operations; among senior

educators, patient safety initiatives may be dismissed as a bureaucratic hospital requirement. Without leadership support, culture will be slow to change; similarly, program directors and medical educators are unlikely to have the resources and tools needed to truly affect change.³⁴

An example of where leadership can set the tone to change the culture of patient safety within the working and learning environments is by altering traditional structures, such as morbidity and mortality rounds. In a culture of blame, these rounds are not treated as a learning opportunity. Leadership needs to view M & M rounds and other patient-centered structures as the vehicle to enjoin the content of patient safety curriculum and patient care management. These existing structures provide an excellent opportunity for educators and practitioners to shift the focus from blame to a fair and just culture approach that emphasizes system issues in understanding adverse events and close calls, but does not ignore individual accountability for professional behaviour. M&M rounds, or other structures such as patient safety grand rounds, chart audits or personal learning projects (PLPs), should also include learning objectives for students, residents and faculty regarding what they should learn from them; these existing structures need also be viewed as an important source of unperceived needs for lifelong learning among practicing physicians, and that the educational experience can drive change. For example, residents' involvement in experiential quality improvement projects, such as chart audits, as part of a formal quality/safety curriculum, frequently leads to significant improvements in processes of care.¹⁹ Training should include how to disclose adverse events to patients and the role of apology in often difficult circumstances.^{35 36} Where appropriate, support should be offered to those involved,³⁷ so that physicians develop appropriate and healthy coping mechanisms. The response to an adverse event should include taking part in exercises in quality improvement, so that all graduating physicians know how to improve the quality and safety of care in their practices.

Furthermore, as the *Unmet Needs* report highlights, patient safety extends beyond going through the motions of completing a check list or following mandated protocols. The culture of practice must embrace the concept of provision of safe and effective care, and that every available reasonable step must be taken to reduce medical error. All physicians, in every type of practice environment, need to practice and model safe and effective care. They must be explicit with this practice and with the example they set for observers; as Cruess, Cruess and Steinert state, "role models inspire and teach by example, often while they are doing other things."³⁸ Furthermore, as noted by Maudsley, "faculty development activities,

including discussions about what good role models are and how to model appropriate attributes, should be central to the school's efforts."³⁹ Faculty must have an awareness of the behaviours that they role model, learn about patient safety, and be seen as role models, actively demonstrating those competencies in their provision of care. Appropriate tools must be developed to assist faculty to become effective role models, including the clinical competence, teaching skills and the personal qualities. There is evidence that a positive learning climate does reduce errors and encourages learning from errors and avoided mistakes.⁴⁰

To begin to assist faculty with this effort, it is suggested that PGME programs begin to formally measure the culture of the working and learning environments vis-à-vis patient safety, using a validated tool or instrument. Several such tools exist, and there is growing evidence of their use in the learning environment.^{41 42} For example, in a 2009 study, Parry, Horowitz and Goldman used the Safety Attitudes Questionnaire (SAQ) designed by Sexton and colleagues, to understand the perceptions of paediatric residents about patient safety; their data "suggest that trainee physicians are comfortable with their ability to care independently for patients... [however, they] are not fully comfortable with their ability to act interdependently."⁴¹ In another very recent study, the SAQ was used in a systematic and methodologically rigorous manner, to assess the safety culture at Johns Hopkins Hospital, to elicit assessments of safety climate, teamwork climate, job satisfaction, stress recognition, working conditions, and perceptions of hospital and unit level management. A comprehensive unit-based safety program was then implemented, and was associated with improvements in safety climate, as reflected in improved SAQ scores.⁴² In addition to the SAQ other tools do exist, such as the Patient Safety Culture Tool required of all health services accredited by Accreditation Canada;⁴³ it might be valuable for the Royal College to explore collaboration with Accreditation Canada, such that the same tool could be used for both the working and learning environments. While the data from individual studies may not be generalizable to all trainees in all programs, the concept of measuring culture through the attitudes of trainees is a common thread. Measuring culture will provide educators will baseline data to help understand the type of culture that currently exists in their programs and will help assess the impact of efforts that are implemented to improve or maintain existing culture.⁴⁴

Teaching and practicing collaborative language may enhance learning opportunities and promote improved interdisciplinary and interprofessional teamwork and patient safety.⁴⁵ Within the traditionally hierarchical environment of healthcare settings, there is a steep

authority gradient, which further exacerbates the learner's difficulty of "speaking up" when there appears to be potential patient safety concerns. In fact, "speaking up" is both a measure of teamwork and safety climates in a healthcare setting, as measured using the SAQ or other culture instruments. The culture of safe practice is one that not only tolerates, but additionally, actively encourages the difficult tasks of "asking questions, expressing disagreement, and challenging the decisions and actions of superiors." The culture of collaboration should also include the patient; faculty members demonstrate and model the principle of patient-centredness by encouraging patients to be active participants in their own care.⁴⁶

Another opportunity to overcome the barriers related to culture and the hidden curriculum, particularly as it relates to the traditional hierarchy in health care organizations, is interprofessional education (IPE). Health care delivery is provided in a complex system, by multiple individuals from many different disciplines,^{47 48 49} and for delivery high-reliability health care, teamwork and collaborative practice is essential. IPE, defined as "...when two or more professions learn with, from and about each other to improve collaboration and the quality of health care,"⁵⁰ is a key strategy that can improve collaborative practice and teamwork, and must therefore become an essential and routine component of undergraduate and PGME, as well as in CPD, as part of a the physician's lifelong learning plan. The knowledge, skills and attitudes required to effectively work in teams are not innate, they must be learned and practiced, and cannot be completely achieved in the silos of the traditional uni-professional-centered educational processes. In 2009, Anderson and colleagues designed a patient safety curriculum for medical students, delivered through lecture, small-group sessions and later consolidated into practice, and found that students who participated in interprofessional groups, as opposed to uni-professionally, gained added value from these interactions and able to frame their thinking more clearly within the context of a safe interprofessional team working environment.⁵¹ Additionally, the Royal College has developed accreditation standards for simulation programs, which were developed by an interprofessional team.⁵² Simulation may provide a tool to create opportunities for interprofessional education as it relates to patient safety, teaching competencies of communication and teamwork. The Canadian Interprofessional Health Collaborative summarizes the need for in the following quote: "How can they work together if they don't learn together?"⁵³ Embedding patient safety curriculum in medical education must therefore include a comprehensive IPE component with an emphasis on team learning

at all levels of medical education.

In summary, the culture of safe practice of medicine is also reflected in a safe learning environment, free from abuse and intimidation, and an atmosphere of collaboration and professional respect. Implicit issues within the learning environment, such as negative role modeling, can be significant barriers to implementing the safety competencies into PGME, and will need to be addressed. Committed leaders are able to drive culture and change; they are needed to envision, design, implement and promote a culture of safety. Leadership is also needed to support the efforts of program directors and champions to design and deliver safety curriculum, and evaluate its implementation.

Potential Benefits

The main benefits that have been identified are vis-à-vis culture with respect to patient safety and the hidden curriculum. In particular, these efforts are seen as helping to articulate and bring awareness to that which is being taught implicitly, and promote more explicit decisions regarding what to teach, and the methods with which to teach, to nurture a just culture.

In a culture of patient safety, faculty will actively contribute to planning, building, modeling and sustaining a culture that values and promotes patient safety. Faculty will recognize that quality care puts the patient in the centre and will thus model respectful and professional behavior at all times. Where the existing culture falls short of what is needed for safe patient care, based on robust data from assessing culture, faculty will work to create a culture that reflects the way things should be done.

Further, the solutions are seen as helping to develop a safe learning environment for all medical trainees. In a learning organization, both faculty and trainees are learners. Knowledge will be continually enhanced from relevant sciences such as the biological sciences, reliability science, human factors engineering, cognitive psychology and others in order to deliver safe care. Learnings from other high-reliability organizations such as aviation and off-shore drilling, where consequences of error are high and where unwavering commitment to a culture of safety is required, will be applied. Furthermore, error prevention will be emphasized rather than error management, leading to improved, proactive systems and analysis.

In summary, the inclusion of patient safety competencies into PGME curricula, and addressing the barriers to implementing them, will positively impact the culture of the working and learning environment, which will hopefully, result in an improvement in the quality of patient care.

Recommendations

The Royal College has an essential role in leading change with respect to the teaching of patient safety curricula in PGME programs. In particular, in a number of areas the Royal College has levers to directly effect change:

1. That teaching and assessing the Patient Safety Competencies must become a mandatory part of PGME program curricula.
 - The Royal College levers for effecting change include:
 - i. Incorporating the safety competencies into the next iteration of the CanMEDS framework,
 - ii. Embedding patient safety in the accreditation standards for all PGME programs,
 - iii. Ensuring patient safety knowledge is assessed in the specialty-specific Royal College exams, including error avoidance and management, and,
 - iv. Including requirements for ongoing professional development with respect to patient safety in the annual maintenance of certification (MOC) requirements.
2. That there needs to be faculty development and continued professional development for teachers and practicing physicians to embed the patient safety themes and behaviours into the medical and medical education cultures.
 - In terms of the Royal College levers for change, it is recommended that
 - i. The Royal College partner with the Canadian Medical Protective Association (CMPA) College of Family Physicians of Canada (CFPC), Canadian Patient Safety Institute (CPSI), and others to explore options for a train-the-trainer program and the provision of appropriate resources for PGME faculty,

- ii. This train-the-trainer program be used to promote the identification and development of a local champion for patient safety at each medical faculty,
 - iii. The Royal College, with its partners, look to creating a tool-kit or inventory of best practices to assist faculty with embedding patient safety in their existing curriculum, and,
 - iv. The Royal College advocate for, or work with its partners to develop, a Royal College area of focused competence (diploma) program in patient safety.
3. That patient safety curricula (for both teaching and learning) be interprofessional in nature.
 - It is recommended that the Royal College:
 - Advocate for partnerships with organizations representing other health professionals, to create faculty resources as well as other tools, and,
 - Encourage the use of direct observation and simulation as valuable tools for IPE in both the learning and working environments.
4. That systematic strategies to measure and change the working and learning environments to support a patient safety culture be implemented.
 - The Royal College's levers with respect to this recommendation include:
 - i. Encouraging the measurement of culture in PGME programs using a valid and reliable instrument such as the Safety Attitudes Questionnaire (SAQ), by including this as a requirement in the postgraduate training program accreditation requirements.
 - ii. Advocating for leadership support for patient safety, setting the tone for culture by altering traditional structures such as M&M rounds and others, to include a focus on error identification, mitigation and prevention, including a review of complications and near misses, emphasizing a fair and just culture.

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Appendix 1: Patient Safety/CanMEDs Competency Framework

Domain	Competency	Required knowledge	How knowledge requirements are covered	How knowledge is assessed	Required Skills	How skills practice provided	Skills assessment	Attitudes	Modeling appropriate attitudes through hidden curriculum	Hidden curriculum assessment (e.g. student perceptions of faculty support for patient safety)
Culture of safety	Commit to patient and provider safety through safe, competent, high-quality daily practice	Understand role in ensuring safe delivery of patient care Knowledge of patient safety rules and procedures Understand limits of competence Knowledge of the risks to patients associated with domain			Work within limits of competence Recognize and respond to unsafe situations			Commitment to patient safety as a key professional value and an essential component of daily practice		
Culture of safety	Describe the fundamental elements of patient safety	Common patient safety terms and concepts Understanding of systems approach to safety improvement Influence of culture on patient safety Understanding of prospective and retrospective analysis tools			Ability to use retrospective and prospective analysis techniques			View patient safety expertise as fundamental to professional practice		
Manage Safety Risks	Recognize routine situations and settings in which safety problems may arise	Situation awareness models and strategies to promote situation awareness Discipline specific tools and techniques (e.g. checklists) to minimise risks			Maintain situation awareness			Positive perception of the utility of situation awareness techniques Value tools and techniques designed to reduce risk to patients		
Manage Safety Risks	Systematically identify implement and evaluate context-specific safety solutions	Discipline specific patient safety interventions How to evaluate patient safety interventions Main sources of evidence based patient safety interventions			Ability to champion patient safety improvement initiatives Ability to navigate the patient safety literature			Positive view of his/ her role in patient safety improvement		
Manage Safety Risks	Anticipate, identify and manage high risk situations	Domain specific situation where risk to patients is increased Domain specific strategies to manage high risk situations			Anticipate and respond to threats to patient safety			Accept role in minimising risk to patients		
Optimize Human and Environmental Factors	Apply techniques in critical thinking to make decisions safely	Cognitive biases that impact decision making Effective decision making strategies			Use critical decision making techniques			Accept that decision making is biased		
Recognize, respond to and disclose adverse events	Recognise the occurrence of an adverse event or close call	Discipline specific common adverse events and appropriate response How to distinguish between adverse events and normal progression of medical condition			Recognise an adverse event versus natural progression of disease			Adverse events can be prevented		
Recognize, respond to and disclose adverse events	Mitigate harm and address immediate risks for patients and others affected by adverse events and close calls	Strategies to minimise harm to patients and team members following an adverse event			Provide care and support to patients and families involved in an adverse event Provide support to team members involved in the adverse event			Victims should be supported Team members can also be victims		

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Domain	Competency	Required knowledge	How knowledge requirements are covered	How knowledge is assessed	Required Skills	How skills practice provided	Skills assessment	Attitudes	Modeling appropriate attitudes through hidden curriculum	Hidden curriculum assessment (e.g. student perceptions of faculty support for patient safety)
Teamwork	Appropriately share authority, leadership, and decision-making for safer care	<p>Knowledge of their role in patient care</p> <p>How to supervise and support team members</p> <p>Common barriers to speaking up and strategies to overcome barriers</p> <p>Effective leadership skills</p>			<p>How to accept delegate tasks</p> <p>How to manage conflict</p>					

Appendix 1: Patient Safety/CanMEDs Competency Framework

Domain	Competency	Required knowledge	How knowledge requirements are covered	How knowledge is assessed	Required Skills	How skills practice provided	Skills assessment	Attitudes	Modeling appropriate attitudes through hidden curriculum	Hidden curriculum assessment (e.g. student perceptions of faculty support for patient safety)
Communication	Demonstrate effective verbal and non-verbal communication abilities to prevent adverse events	Models of effective team communication Models of effective patient centered communication including awareness of cultural differences Roles and responsibilities of team members			Effective use of team communication techniques Ability to share complex information to patients and families while avoiding jargon			View appropriate communication as important		
Communication	Communicate effectively in special high-risk situations to ensure the safety of patients	Models of effective team communication Models of effective patient centered communication Roles and responsibilities of team members			Use appropriate communication techniques in high risk situations			Recognise the importance of structured communication in high risk situations		
Communication	Use effective written communications for patient safety	Correct notation to use on patient charts including acronyms and abbreviations to avoid risks associated with written communication			Use appropriate notation and provide all required information			Accept the risk associated with poor written communication		
Communication	Apply communication technologies appropriately and effectively to provide safe patient care	Understanding of how to use current electronic communication technologies Structured communication techniques (SBAR)			Use available information technology tools appropriately Use structured communication tools			Value the added safety offered by information technology		

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Domain	Competency	Required knowledge	How knowledge requirements are covered	How knowledge is assessed	Required Skills	How skills practice provided	Skills assessment	Attitudes	Modeling appropriate attitudes through hidden curriculum	Hidden curriculum assessment (e.g. student perceptions of faculty support for patient safety)
Teamwork	Participate effectively and appropriately in an inter-professional health care team to optimize patient safety	<p>Understand other healthcare professionals' expertise, competence and role</p> <p>Know how to be respectful and what behaviors may be disrespectful. Understand the research evidence concerning the negative impact of disrespect on team performance. Understand physicians role as a team leader</p> <p>Know what constitutes an adverse event within area of expertise/practice. Understand the importance of learning from adverse events and close calls</p> <p>Knowledge of strategies to enhance teamwork within healthcare</p> <p>Knowledge of strategies on how to provide performance feedback. Know the attributes of effective listening. Understand the importance of effective listening.</p>			<p>Ability to identify situations where important expertise is absent and which professionals have these skills</p> <p>Able to behave in a respectful manner. Ability to monitor and modify own behavior</p> <p>Ability to raise a concern with a colleague or other healthcare professional in an assertive but non confrontational manner</p> <p>Ability to communicate with other healthcare professionals</p> <p>Ability to advocate for change and the adoption of new practices</p> <p>Able to give and receive feedback to colleagues and other healthcare providers.</p> <p>Effective listening skills</p>					
Teamwork	Healthcare professionals who work effectively with health care team members to manage inter-	<p>Strategies to identify conflict</p> <p>Strategies to manage conflict</p>								
Recognize, respond to and disclose adverse events	Participate in timely event analysis, reflective practice and planning for the prevention of recurrence	How to analyse an adverse event						Participation in adverse event analysis is worthwhile		

Appendix 1: Patient Safety/CanMEDs Competency Framework

Domain	Competency	Required knowledge	How knowledge requirements are covered	How knowledge is assessed	Required Skills	How skills practice provided	Skills assessment	Attitudes	Modeling appropriate attitudes through hidden curriculum	Hidden curriculum assessment (e.g. student perceptions of faculty support for patient safety)
Culture of safety	Maintain and enhance patient safety practices through ongoing learning	Knowledge of continuing education opportunities in patient safety			Ability to identify learning needs Peer and self assessment of practice			Value professional learning as a life-long process requiring self-assessment and self-directed education		
Optimize Human and Environmental Factors	Describe the individual and environmental factors that can affect performance	Human factors theory and techniques Factors (e.g. fatigue, stress) that reduce performance Impact of organisational factors such as culture on performance			Identify poor human factors and propose solutions Identify situations where performance may be impaired Recognise the cultural norms impacting performance			Acceptance that personal performance is influenced by individual (fatigue) and environmental factors		
Optimize Human and Environmental Factors	Appreciate the impact of the human/ technology interface on safe care	Domain specific human factors challenges			Perform workflow analysis			Performance is influenced by workspace and workflow design		

Appendix 1: Patient Safety/CanMEDs Competency Framework

Domain	Competency	Required knowledge	How knowledge requirements are covered	How knowledge is assessed	Required Skills	How skills practice provided	Skills assessment	Attitudes	Modeling appropriate attitudes through hidden curriculum	Hidden curriculum assessment (e.g. student perceptions of faculty support for patient safety)
Teamwork	Meaningfully engage patients as the central participants in their healthcare teams	Importance of patient centered care Importance of patient involvement Strategies to facilitate informed patient decision making How to advocate for resources to support patient centred care Knowledge of cultural differences			How to support patient involvement How to support patient decision making How to be sensitive to cultural differences					

Appendix 1: Patient Safety/CanMEDs Competency Framework

Domain	Competency	Required knowledge	How knowledge requirements are covered	How knowledge is assessed	Required Skills	How skills practice provided	Skills assessment	Attitudes	Modeling appropriate attitudes through hidden curriculum	Hidden curriculum assessment (e.g. student perceptions of faculty support for patient safety)
Recognize, respond to and disclose adverse events	Disclose the occurrence of an adverse event to the patient and/or their families as appropriate and in keeping with relevant legislation	Disclosure requirements as specified by governing bodies Information that should be disclosed Policies and procedures governing disclosure Stages of disclosure			Provide honest and timely communication about the facts			Victims are entitled to all the facts surrounding the adverse event		
Culture of safety	Demonstrate a questioning attitude as a fundamental aspect of professional practice and patient care				Openness to change Ability to challenge unsafe practices			Have a questioning attitude		

Patient Safety Needs Assessment

Instructions:

Using the rating scale below read and reflect on each item description, providing a score for your perceptions of yourself in the left column.

Rating Scale:

1	2	3	4	5
Disagree Strongly	Disagree Slightly	Neutral	Agree Slightly	Agree Strongly

CanMEDs Role	Competencies	Score
Medical Expert	<ul style="list-style-type: none"> • I have knowledge of key patient safety concepts, such as adverse events, close calls, no-harm events and just culture. 	1 2 3 4 5
	<ul style="list-style-type: none"> • I take efforts to minimize the potential risks presented by one's daily practice. 	1 2 3 4 5
	<ul style="list-style-type: none"> • I recognize and respond appropriately to potential and actual unsafe clinical situations. 	1 2 3 4 5
	<ul style="list-style-type: none"> • I am aware of and work within my own limitation. 	1 2 3 4 5
	<ul style="list-style-type: none"> • I have knowledge of policies and procedures as they relate to patient and provider safety, including disclosure. 	1 2 3 4 5
	<ul style="list-style-type: none"> • I integrate safety practices into daily activities (i.e. hand hygiene). 	1 2 3 4 5
	<ul style="list-style-type: none"> • I have knowledge of core theories and terminology of patient safety and the epidemiology of unsafe practices. 	1 2 3 4 5
	<ul style="list-style-type: none"> • I have knowledge of the principles, practices and processes that have been demonstrated to promote patient safety. 	1 2 3 4 5
	<ul style="list-style-type: none"> • I demonstrate an openness to change. 	1 2 3 4 5
	<ul style="list-style-type: none"> • I demonstrate respect and professionalism. 	1 2 3 4 5
	<ul style="list-style-type: none"> • I protect and respect privacy and confidentiality. 	1 2 3 4 5
	<ul style="list-style-type: none"> • I provide the correct type and amount of information. 	1 2 3 4 5
	<ul style="list-style-type: none"> • Demonstrate situational awareness by continually observing the whole environment, thinking ahead and reviewing potential options and consequences. 	1 2 3 4 5
	<ul style="list-style-type: none"> • Recognize safety problems in real-time and respond to correct them, preventing them from reaching the patient. 	1 2 3 4 5
	<ul style="list-style-type: none"> • Employ, as appropriate, techniques such as diligent information-gathering, cross-checking of information using checklists, and investigating mismatches between the current situation and the expected state. 	1 2 3 4 5
	<ul style="list-style-type: none"> • I engage in critical thinking, including situational awareness of cognitive biases in decision-making. 	1 2 3 4 5
	<ul style="list-style-type: none"> • I assess personal work-life balance issues and how they affect professional performance and the safety of patients and human performance. 	1 2 3 4 5
	<ul style="list-style-type: none"> • I am aware of the impact of fatigue and other human limitations on clinical performance. 	1 2 3 4 5
	<ul style="list-style-type: none"> • I am aware of the role of attitude and professional culture in clinical practice. 	1 2 3 4 5
	<ul style="list-style-type: none"> • I am aware of the role of wellness and its effect on knowledge and skills acquisition. 	1 2 3 4 5
<ul style="list-style-type: none"> • I know how to integrate coping mechanisms to mitigate performance risks and ambient conditions in various practice environments. 	1 2 3 4 5	
<ul style="list-style-type: none"> • I am able to describe common types of cognitive biases. 	1 2 3 4 5	

Appendix 2: Patient Safety Needs Assessment

	• I am able to model the behavioral characteristics that demonstrate situational awareness.	1 2 3 4 5
	• I am able to describe the role of usability assessment in the safe application of technology.	1 2 3 4 5
	• I can describe the principles of workflow analysis to enhance care.	1 2 3 4 5
	• I can recognize, respond to, and disclose adverse events.	1 2 3 4 5
	• I can define and recognize adverse events and close calls.	1 2 3 4 5
	• I can differentiate between an outcome related to the natural progression of disease and an adverse event.	1 2 3 4 5
	• I am aware of the moral-ethical reasoning and decision-making around adverse events.	1 2 3 4 5
	• I can define the terms harm, adverse events, close call, and know the response that is appropriate to each.	1 2 3 4 5
	• I understand what information should be disclosed at the initial disclosure stage, the time frame for disclosure, and the relevant documentation, reporting and analysis.	1 2 3 4 5
	• I can differentiate between disclosure and reporting and the inherent processes associated with each concept.	1 2 3 4 5
	• I express regret and give an apology in post-analysis disclosure.	1 2 3 4 5
	• I understand the need to gain a better understanding of the adverse event such as considering what samples, clinical materials and equipment may be helpful in future investigations.	1 2 3 4 5
	• I engage in personal and professional reflection regarding the adverse event.	1 2 3 4 5
Communicator	• I involve patients and their families as key players in patient safety.	1 2 3 4 5
	• I am sensitive to the emotional impact of adverse events on patients, families and health care professionals.	1 2 3 4 5
	• I use the shared vocabulary to facilitate effective communication within the team.	1 2 3 4 5
	• I follow protocols for the team's response to adverse events, including appropriate disclosure to patients, debriefing and team support.	1 2 3 4 5
	• I use evidence-informed team communication tools to facilitate the improvement of patient safety, including: permission and invitation to speak up, question, and challenge; conversational turn-taking; listening; checklists and briefing.	1 2 3 4 5
	• I give transparent feedback that fosters team development.	1 2 3 4 5
	• I am receptive to constructive feedback about care, and I too provide constructive feedback to others.	1 2 3 4 5
	• I practice patient-centered care such that the patient and family are visibly active team participants.	1 2 3 4 5
	• I demonstrate respect for all team members, including the patient and his or her family.	1 2 3 4 5
	• I provide and accept feedback to improve the performance of the teams and its members.	1 2 3 4 5
	• I practice effective listening techniques to contribute to optimal teamwork and patient care.	1 2 3 4 5
	• I explain my role in patient care to team members and patients.	1 2 3 4 5
	• I share understanding and decision-making with patients and family.	1 2 3 4 5
	• I use jargon-free language to convey complex information clearly.	1 2 3 4 5
	• I support written and oral communication, when appropriate, with patient education materials.	1 2 3 4 5
	• I use appropriate communication techniques for high risk situations.	1 2 3 4 5
	• I communicate with other providers to facilitate smooth transfer of care.	1 2 3 4 5
	• I use effective team communication skills.	1 2 3 4 5
	• I use communication tools and technologies.	1 2 3 4 5
	• I provide proper disclosure and reporting of adverse events.	1 2 3 4 5
	• I practice a patient-centered approach to communication.	1 2 3 4 5

Appendix 2: Patient Safety Needs Assessment

	• I show respect and empathy in communication.	1	2	3	4	5
	• I explain investigations, treatments and protocols clearly and adequately to patients.	1	2	3	4	5
	• I convey information with clarity appropriate to each patient.	1	2	3	4	5
	• I communicate in a manner that is sensitive to health literacy needs.	1	2	3	4	5
	• I employ active listening techniques to understand the needs of others.	1	2	3	4	5
	• I communicate in a manner that is respectful of cultural diversity.	1	2	3	4	5
	• I use a variety of communication tools and techniques to enhance and assess understanding on the part of patients and their families.	1	2	3	4	5
	• I engage patients and substitute decision-makers in a discussion of risks and benefits of investigations and treatments to obtain informed consent.	1	2	3	4	5
	• I provide informed discharge so that patients know when and where to seek care.	1	2	3	4	5
	• I communicate to others the urgency of a clinical situation.	1	2	3	4	5
	• I demonstrate insight into my own communication style with patients and team members in ordinary, crisis, and stressful situations and adjust these styles appropriately to provide safe care.	1	2	3	4	5
	• I can identify biases that affect decision-making.	1	2	3	4	5
	• I know the correct processes of disclosure.	1	2	3	4	5
	• I provide honest, timely, effective communication about the facts of the adverse event.	1	2	3	4	5
	• I provide care and support to both parties and health care professionals affected by the event.	1	2	3	4	5
	• I am committed to the primacy of the patient-health care professional relationship.	1	2	3	4	5
	• I engage in honest communication and empathetic dialogue with respect to disclosure.	1	2	3	4	5
	• I understand the stages of disclosure.	1	2	3	4	5
Collaborator	• I recognize my personal limitations and ask for assistance when required.	1	2	3	4	5
	• I exchange feedback with colleagues on safety issues on an ongoing basis in an open manner.	1	2	3	4	5
	• I recognize clinical situations that may be unsafe and support the empowerment of all staff to resolve unsafe situations.	1	2	3	4	5
	• I enable the provision of an environment of support and safety for health care professionals.	1	2	3	4	5
	• I know the roles and responsibilities of each team member, including decision-making, supervision and support, and the expectation and requirements for individual performance.	1	2	3	4	5
	• I am aware of the skills, competencies, experience and scopes of practice of team members, including overlaps and gaps in team's capabilities.	1	2	3	4	5
	• I have knowledge of the impact of technology on team dynamics.	1	2	3	4	5
	• I understand the rationale for and implementation of team processes, policies and procedures.	1	2	3	4	5
	• I know how to proactively address concerns about provider or system performance involving risk to patients and/or team members through the appropriate channels.	1	2	3	4	5
	• I am committed to fulfilling my individual responsibilities in the team environment.	1	2	3	4	5
	• I provide appropriate debriefing and team support after an adverse event or close call.	1	2	3	4	5
	• I participate in shared interprofessional team learning, including setting measurable team goals and priorities, and in implementing continuous quality improvement.	1	2	3	4	5
	• I am able to describe the competencies, roles, expertise and overlapping	1	2	3	4	5

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	scopes of practice of all team members and am able to identify gaps that need to be addressed.	
	<ul style="list-style-type: none"> I identify and act on safety issues, priorities and adverse events in the context of team practice. 	1 2 3 4 5
	<ul style="list-style-type: none"> I accept delegated tasks. 	1 2 3 4 5
	<ul style="list-style-type: none"> I ask for support when appropriate. 	1 2 3 4 5
	<ul style="list-style-type: none"> I work with other team members to prevent conflicts. 	1 2 3 4 5
	<ul style="list-style-type: none"> I employ collaborative negotiation to manage conflicts in the team. 	1 2 3 4 5
	<ul style="list-style-type: none"> I respect differences, misunderstandings and limitations that may contribute to interprofessional tensions. 	1 2 3 4 5
	<ul style="list-style-type: none"> I apply technology appropriately in team safety practices. 	1 2 3 4 5
	<ul style="list-style-type: none"> I employ communication techniques to escalate concerns across authority gradients to match the seriousness of the clinical situation. 	1 2 3 4 5
	<ul style="list-style-type: none"> I employ appropriate communication approaches in high risk situations, such as in clinical crises, emotional or distressing situations, and conflict. 	1 2 3 4 5
	<ul style="list-style-type: none"> I use appropriate communication approaches to provide safe transfers, transitions of care, and consultations among providers, including between institutions, and on discharge to community care. 	1 2 3 4 5
	<ul style="list-style-type: none"> I understand the roles and responsibilities of team members. 	1 2 3 4 5
	<ul style="list-style-type: none"> I convey information in structured communications to team members to promote understanding. 	1 2 3 4 5
	<ul style="list-style-type: none"> I provide appropriately detailed and clear written or electronic entries to the patient health record. 	1 2 3 4 5
	<ul style="list-style-type: none"> I provide sufficient documentation to facilitate team members comprehension of the patient's history, physical findings, diagnosis and rationale for the diagnosis, treatment and care plan at any time. 	1 2 3 4 5
	<ul style="list-style-type: none"> I provide patient care orders and prescriptions using safe practices to avoid misinterpretation. 	1 2 3 4 5
	<ul style="list-style-type: none"> I write patient care orders and prescriptions to convey the appropriate degree of urgency. 	1 2 3 4 5
	<ul style="list-style-type: none"> I use appropriate , safe written communication approaches in consultation requests and responses, investigative, operative, and other reports, and other correspondence. 	1 2 3 4 5
	<ul style="list-style-type: none"> I recognize the safety implications of using abbreviations. 	1 2 3 4 5
	<ul style="list-style-type: none"> I am aware of the benefits, limitations, and professional care responsibilities of using technologies, such as the Electronic Health Record, the Electronic Medical Record, Computerized Professional order Entry, the telephone, the fax machine, email and other such technologies. 	1 2 3 4 5
	<ul style="list-style-type: none"> I employ critical thinking tools and structured approaches to communications (e.g. Situation-Background-Assessment-Recommendation [SBAR] and read-back of orders on the telephone) when using technology. 	1 2 3 4 5
	<ul style="list-style-type: none"> I have an understanding of individual characteristics, including gender, age, personality and risk tolerance or aversion. 	1 2 3 4 5
	<ul style="list-style-type: none"> I have an understanding of factors that affect my personal well-being, including work-life balance, sleep deprivation/sleep debt, and physical and emotional health. 	1 2 3 4 5
	<ul style="list-style-type: none"> I provide appropriate support for individual health care professionals and teams involved in adverse events and close calls. 	1 2 3 4 5
Manager	<ul style="list-style-type: none"> I have knowledge of patient safety processes, including the reporting of adverse events, methods of analyzing how an adverse event occurred, system improvement processes, and the institution of structures to ensure accountability within a system. 	1 2 3 4 5
	<ul style="list-style-type: none"> I recognize system failures and provider performance to adverse events and close calls. 	1 2 3 4 5
	<ul style="list-style-type: none"> I participate in a systems-based approach to reducing system failures. 	1 2 3 4 5

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	• I report unsafe processes within the health care system.	1 2 3 4 5
	• I participate actively in event and close call reporting, event analyses and process improvement initiatives.	1 2 3 4 5
	• I am committed to a just culture, promoting fair approaches to dealing with adverse events.	1 2 3 4 5
	• I advocate for improvements in system processes to support professional practice standards and the best patient care.	1 2 3 4 5
	• I have demonstrated commitment to patient safety by promoting it as a major organizational or institutional goal at the most senior level.	1 2 3 4 5
	• I am aware of team dynamics and authority gradients, and the importance of relevant expertise as a basis for leadership in a given situation.	1 2 3 4 5
	• I have the resources and administrative skills required to achieve the team's objectives for patient care.	1 2 3 4 5
	• I manage and prevent conflict, and conduct effective negotiations.	1 2 3 4 5
	• I apply standardized team processes and protocols to ensure reliability and shared understanding.	1 2 3 4 5
	• I use appropriate shared clinical documentation to facilitate continuity of care.	1 2 3 4 5
	• I exercise decision-making authority in a situationally appropriate manner.	1 2 3 4 5
	• I set clear parameters for independent decision-making.	1 2 3 4 5
	• I delegate tasks, provide consultation and support as appropriate.	1 2 3 4 5
	• I monitor and evaluate team performance.	1 2 3 4 5
	• I foster an environment in which each member of the team both learns from and teaches other team members.	1 2 3 4 5
	• I am able to describe individual and team roles and responsibilities in the context of practice and in the health care system.	1 2 3 4 5
	• I work to develop a shared set of individual and team values, rights and responsibilities.	1 2 3 4 5
	• I foster an environment in which responsibility for care and accountability for outcomes is appropriately shared, such that each individual in a team is held accountable for the quality of his or her work.	1 2 3 4 5
	• I collaboratively consult with, delegate tasks to, supervise and support team members.	1 2 3 4 5
	• I encourage team members to speak up, question, challenge, and advocate and be accountable to address safety issues and risks inherent in the system.	1 2 3 4 5
	• I demonstrate leadership techniques appropriate to clinical situations.	1 2 3 4 5
	• I define and identify conflict in health care teams.	1 2 3 4 5
	• I demonstrate willingness to set team goals and priorities, measure progress, and learn from experience together as a team.	1 2 3 4 5
	• I effectively communicate delegated tasks and provide appropriate supervision.	1 2 3 4 5
	• I provide effective consultations, requests, reports and documentation.	1 2 3 4 5
	• I manage safety risks and have an understanding of system design and its impact on event evaluation.	1 2 3 4 5
	• I try to reduce infection control by engaging in aseptic techniques, hand hygiene, screening and surveillance.	1 2 3 4 5
	• I try to prevent injury by transporting, handling and transferring the patient safely and removing physical hazards.	1 2 3 4 5
	• I try to reduce adverse events by properly handling and maintaining equipment.	1 2 3 4 5
	• I participate in the safe administration of medication including the standardization of drug formulations, reliable patient identification and alerts.	1 2 3 4 5

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	<ul style="list-style-type: none"> I understand the purpose of redundancy of clinical processes: medicine checking, allergy checking, wrong-side checking, checklists and buddy systems. 	1	2	3	4	5
	<ul style="list-style-type: none"> I recognize the need for standardization of approaches and processes (e.g. evidence-informed practice guidelines and checklists). 	1	2	3	4	5
	<ul style="list-style-type: none"> I effectively manage safety risks by anticipating and recognizing problems on the level of individuals and systems. 	1	2	3	4	5
	<ul style="list-style-type: none"> I effectively manage safety risks by responding to safety-related situations. 	1	2	3	4	5
	<ul style="list-style-type: none"> I effectively manage safety risks by monitoring, track and re-evaluate system failures, potential cognitive pitfalls of health care providers, and clinical status of the patient. 	1	2	3	4	5
	<ul style="list-style-type: none"> I effectively manage safety risks by exercising vigilance on safety issues. 	1	2	3	4	5
	<ul style="list-style-type: none"> I effectively manage safety risks by conducting proactive risk analysis. 	1	2	3	4	5
	<ul style="list-style-type: none"> I recognize health care settings that may lead to high-risk situations. 	1	2	3	4	5
	<ul style="list-style-type: none"> I respond effectively by means of efficient task and process management, crisis team management, crisis team functioning and dynamic decision-making. 	1	2	3	4	5
	<ul style="list-style-type: none"> I participate in on-going training, such as simulations to enhance abilities to manage high-risk situations. 	1	2	3	4	5
	<ul style="list-style-type: none"> I am aware of optimal environmental factors such as light and sound, surge conditions, work interruptions and technology. 	1	2	3	4	5
	<ul style="list-style-type: none"> I have an understanding of the importance of ergonomics, including human factors engineering, system design, and technology and work flow. 	1	2	3	4	5
	<ul style="list-style-type: none"> I have knowledge of local, national and international systems, their policies and procedures, resource allocation and culture. 	1	2	3	4	5
	<ul style="list-style-type: none"> I can identify the normalization of deviance and unsafe work rounds as they relate to human performance and culture. 	1	2	3	4	5
	<ul style="list-style-type: none"> I appreciate that human performance is affected by one's behavior within a system constructed by resources, culture and policy. 	1	2	3	4	5
	<ul style="list-style-type: none"> I know how to evaluate the impact of organizational resource allocation, policies, and procedures and culture. 	1	2	3	4	5
	<ul style="list-style-type: none"> I define human factors and human factors engineering and understand their application in health care environments. 	1	2	3	4	5
	<ul style="list-style-type: none"> I recognize the importance of ergonomics in safety design. 	1	2	3	4	5
	<ul style="list-style-type: none"> I reduce or manage the risk of further harm to patients affected by adverse events and close calls. 	1	2	3	4	5
	<ul style="list-style-type: none"> I am aware of existing policies and procedures associated with disclosure and the extent to which these foster a culture of patient safety. 	1	2	3	4	5
	<ul style="list-style-type: none"> I am able to determine who is responsible for the disclosure and who should be present when it is made. 	1	2	3	4	5
	<ul style="list-style-type: none"> I document unexpected outcomes, adverse events and the disclosure discussions. 	1	2	3	4	5
	<ul style="list-style-type: none"> I provide on-going follow-up as needed. 	1	2	3	4	5
	<ul style="list-style-type: none"> I recognize that the reporting of adverse events takes place across the continuum of care and includes primary, secondary and tertiary care centers. 	1	2	3	4	5
	<ul style="list-style-type: none"> I recognize the importance of monitoring the outcome of event analysis. 	1	2	3	4	5
	<ul style="list-style-type: none"> I advocate for system change as warranted. 	1	2	3	4	5
Health Advocate	<ul style="list-style-type: none"> I am knowledgeable about methods by which health care professional can advocate for patient and health care system safety. 	1	2	3	4	5
	<ul style="list-style-type: none"> I address key safety issues and priorities inherent in team practice and pertinent to the patient population served. 	1	2	3	4	5
	<ul style="list-style-type: none"> I foster an environment in which the team works to provide the best possible patient outcomes. 	1	2	3	4	5
	<ul style="list-style-type: none"> I advocate for individual patients and for appropriate resources to meet 	1	2	3	4	5

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	their needs.	
	<ul style="list-style-type: none"> I facilitate continuity of care (through integrated, interprofessional, individualized care plans that extend across the health care organization and across all care transitions and that belong to the patient). 	1 2 3 4 5
	<ul style="list-style-type: none"> I ensure that patients are at the centre of care. 	1 2 3 4 5
	<ul style="list-style-type: none"> I engage patients in decision-making and the management of their own health. 	1 2 3 4 5
	<ul style="list-style-type: none"> I provide appropriate, sufficient and clear information, and teaching to patients to support informed decision-making. 	1 2 3 4 5
	<ul style="list-style-type: none"> I advocate to individual patients and for the resources to be able to provide patient-centered, high-quality care. 	1 2 3 4 5
	<ul style="list-style-type: none"> I respond to individual patient needs and respect cultural and personal health beliefs and practices. 	1 2 3 4 5
	<ul style="list-style-type: none"> I am aware of the issues surrounding health literacy. 	1 2 3 4 5
	<ul style="list-style-type: none"> I am conscious of cultural diversity and cultural competency. 	1 2 3 4 5
	<ul style="list-style-type: none"> I am a believer in the patient's capacity to make decisions. 	1 2 3 4 5
	<ul style="list-style-type: none"> I identify and promote well designed patient education material. 	1 2 3 4 5
	<ul style="list-style-type: none"> I effectively manage safety risks by advocating for patient safety. 	1 2 3 4 5
	<ul style="list-style-type: none"> I assess the immediate safety and care needs for the physical and emotional well-being of patients and their families, and provide interventions as appropriate. 	1 2 3 4 5
	<ul style="list-style-type: none"> I recognize that there are situations that constitute special consideration regarding disclosure (i.e. patients in vulnerable situations, patients who have substitute decision-makers, patients with special communication requirements, and patients whose cultural perspective on disclosure differs from the providers) 	1 2 3 4 5
Scholar	<ul style="list-style-type: none"> I engage in the creation, application, dissemination and translation of patient safety principles, practices, behaviors, attitudes and knowledge. 	1 2 3 4 5
	<ul style="list-style-type: none"> I value professional learning as a life-long learning process requiring self-assessment and self-directed education. 	1 2 3 4 5
	<ul style="list-style-type: none"> I demonstrate a questioning attitude in routine and non-routine activities. 	1 2 3 4 5
	<ul style="list-style-type: none"> I make use of evaluative strategies to promote patient safety. 	1 2 3 4 5
	<ul style="list-style-type: none"> I identify opportunities for continuous learning and improvement for patient safety. 	1 2 3 4 5
	<ul style="list-style-type: none"> I reflect on actions and decisions continuously, with self-awareness and using self-evaluation, to improve knowledge and skills in patient safety. 	1 2 3 4 5
	<ul style="list-style-type: none"> I analyze a patient safety event and give examples on how future events can be avoided. 	1 2 3 4 5
	<ul style="list-style-type: none"> I participate in patient and health care professional safety education. 	1 2 3 4 5
	<ul style="list-style-type: none"> I share information on adaptations to practices and procedures that increase safety for specific individuals or situations. 	1 2 3 4 5
	<ul style="list-style-type: none"> I contribute to the creation, dissemination, application, and translation of new health care system safety knowledge and practice. 	1 2 3 4 5
	<ul style="list-style-type: none"> I participate in self- and peer assessments reflecting on practice and patient outcomes. 	1 2 3 4 5
	<ul style="list-style-type: none"> I recognize that continuous improvement in patient care may require them to challenge existing methods. 	1 2 3 4 5
	<ul style="list-style-type: none"> I identify existing procedures and policies that may be unsafe or are inconsistent with best practices and take action to address those concerns. 	1 2 3 4 5
	<ul style="list-style-type: none"> I re-examine simplistic explanations for adverse events to facilitate optimal changes to care. 	1 2 3 4 5
	<ul style="list-style-type: none"> I accept the team as an evidence-informed community of practice for learning. 	1 2 3 4 5
	<ul style="list-style-type: none"> I participate in the creation of a team environment where continuous learning is the norm. 	1 2 3 4 5

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	• I contribute to a defined process for introducing new and emerging evidence into team-based care.	1	2	3	4	5
	• I address all practice variations that can dilute the reliable delivery of evidence-informed care.	1	2	3	4	5
	• I document the rationale for significant deviations from established processes or guidelines.	1	2	3	4	5
	• I provide informed consent, including capacity assessment as required and informed discharge.	1	2	3	4	5
	• I participate in informed consent.	1	2	3	4	5
	• I have knowledge of models of effective patient-centered communication.	1	2	3	4	5
	• I know models of effective team communication.	1	2	3	4	5
	• I critically appraise the literature to identify evidence-informed and emerging safety solutions.	1	2	3	4	5
	• I learn from local successes and experiences, assessing their appropriateness to a work setting.	1	2	3	4	5
	• I select the most appropriate solutions for a given context, taking into account quality, resources, and practicality and patient preferences.	1	2	3	4	5
	• I reflect on the impact of an individual intervention, including the potentially harmful or unintended consequences of a safety intervention.	1	2	3	4	5
	• I evaluate the ongoing success of a safety intervention by incorporating lessons learned.	1	2	3	4	5
	• I adjust policies and procedures to reflect established guidelines, if applicable.	1	2	3	4	5
	• I am able to demonstrate a process of sound decision-making, understanding where the process can be challenged and corrected.	1	2	3	4	5
	• I have an understanding of the effect of the acceptance of deviance as the norm and the creation of unsafe work-arounds.	1	2	3	4	5
	• I accept my obligation to disclose the occurrence of adverse events in keeping with current legislation and policies.	1	2	3	4	5
	• I have a willingness to participate in event analysis and continuous quality improvement.	1	2	3	4	5
	• I apply lessons learned from event analysis.	1	2	3	4	5
Professional	• I am aware of different organizational cultures, as well as the characteristics of a high reliability organization and how they relate to health care.	1	2	3	4	5
	• I am committed to patient safety as a key professional value and an essential component of daily practice.	1	2	3	4	5
	• I am able to articulate my role as an individual, as a professional, and as a health care system employee in providing safe patient care.	1	2	3	4	5
	• I am conscious of my responsibility to act as a role model and champion patient-safety behaviors to my colleagues.	1	2	3	4	5
	• I understand the nature of systems and latent failures in the trajectory of adverse events.	1	2	3	4	5
	• I have knowledge of the elements of a just culture for patient safety, and the role of professional and organizational accountabilities.	1	2	3	4	5
	• I understand the concept that health care is a complex adaptive system with much vulnerability (e.g. space or workplace design, staffing, and technology).	1	2	3	4	5
	• I have an understanding of the current professional's obligations, legislation and policies for reporting of adverse events.	1	2	3	4	5
	• I recognize the ethical, professional and legal obligation to disclose and report adverse events.	1	2	3	4	5
	• I recognize the need for a just culture of safety in supporting disclosure and reporting.	1	2	3	4	5
	• I appreciate the legal implications arising from disclosure.	1	2	3	4	5
	• I recognize the need for information exchange across health care	1	2	3	4	5

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	organizations and as mandated by provincial/territorial legislation.	
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